

April 84

Lakehead amateur radio club

HIGH-Q

HIGH - Q

APRIL 1984

THE APRIL MEETING OF THE L.A.R.C. WILL BE HELD ON THURSDAY, APRIL 12 AT 8:00 P.M.

IT WILL BE AT THE EMO BUILDING ON THE CORNER OF WATERLOO AND VICTORIA.

AFTER THE BUSINESS IS COMPLETE WE WILL HAVE OUR SWAPFEST. THIS IS THE TIME TO BRING OUT YOUR JUNK AND TRADE IT FOR SOME GOOD STUFF.

SEE YOU THERE.

DULUTH SWAPFEST

The Duluth Swapfest and Computer Fair "84" will be held on Saturday, May 5, from 10:00 AM to 3:00 PM.

This year it will be held in the Wessman Arena, 2701 Catlin Avenue, Superior, Wisc.

Tickets will be \$3.00 at the door and \$2.50 in advance.

Some of the prizes are a trip for two to Las Vegas; a Commodore 64; Ringo Range II and a Hy-gain 80-10 vertical.

The talk-in repeater is 146.34/146.94.

A gang from Thunder Bay is going down and are staying at the Holiday Inn.

If you want more info, Vic VE3JAR can possibly be of some help.

See you in Duluth.

HOUGHTON HAMFEST

The Copper Country radio Amateur Association located in the upper peninsula of Michigan will be hosting the 1984 Upper Peninsula Hamfest. It will be held on July 28, 1984, on the campus of Michigan Technological University at the Memorial Union Cafeteria in Houghton, Michigan.

What a few local hams have planned is to take the new hovercraft from Thunder Bay to Isle Royal (If the service is running) and boat from the Isle Royal to Houghton. If the hovercraft does not start it may be possible to get to Houghton via the ferry from Grand Portage.

I have a list of hotels in the Houghton area and will try to get more info on this.

VE3EFC.

SIBLEY CROSS COUNTRY TOUR

I would like to take this opportunity to thank all of the hardy souls of the LARC who got out of bed too early on Saturday, March 3rd to help make this event a resounding success. The event Coordinators were very impressed with our performance! Aside from a few snow machine breakdowns, out part went off without a hitch.

Once again great thanks to: Dan VE3KRO, Gary VE3HJS, Bill VE3SJ, Linda VE3KRW and Vic VE3KRV for putting VE3KRL back on the air.

This is a great exercise for your club and it's too bad we can't get more bodies out for this annual event.

Bob VE3KRL

HAM SHOP

For Sale - Surplus Equipment

- 1 National NC303 Receiver with Frequency Meter and 10" speaker in separate cabinet
- 2 Heathkit DX60 Transmitter
- 3 Heathkit H610 VFO
- 4 Set of Headphones, 1 Morse Key, COAX and Antenna Wire, \$200 or offers

For more info call:

J.F. Atkinson VE3EEQ
R.R.#1
DORION, ONTARIO 807-857-2446

For Sale

- 1 Hy-Gain 18AVT/WB, 80-10 Metre Vertical ant; \$100.00
- 2 Heathkit SB-201 Linear, Mint condition and complete with 10 metres; \$350.00.

For more info call:

Gerry VE3KRZ
Home: 577-3575
Work: 345-1661

For Sale

- 1 Heathkit DX-100, puts out a 100 watts on 11 metres
- 2 Hammarlund HQ-129X, covers .5 to 30 Mhz, and matching speaker make me an offer, call Bill at 623 1542.

MODEMS (CONT'D FROM LAST ISSUE)

Telephones are analog/voice circuits. In order to convert digital voltage to analog signals, we must modulate them on audio and transmit them, then demodulate the audio and convert it back to digital pulses. This is done by a modulator/demodulator or modem for short.

The bandwidth of the telephone circuit, the lowest and highest frequencies that will pass through the phone are the "intelligence band", 500 to 3000 hertz.

Long distance telephone circuits employ echo suppression--switched amplifiers that turn the phone line into a one way circuit while one person speaks, and then reverse the amps when the other speaks. The telephone is also very prone to AM noise, so the modem must use FM.

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This is how it's done: the modem originating the call uses originate. The answering modem uses answer. The call is placed, the answer modem detects the ring, answers the phone and sends a 2225 Hz tone. This tone disables the echo suppression amplifiers in the telephone circuit, and when detected by the originate modem, indicates that a connection is established. The org. replies with a 1270 Hz tone which is detected by the ans modem and indicates that a communication channel is established. The answer modem will hang up after 12 seconds if this tone is not frequency shift keying. When the data bit shifts the level from mark to space, the tone changes from 2225 to 2025 Hz ans and from 1270 to 1070 orig. All the tones then, are within the bandwidth of the voice grade channel.

Beside the data lines in and out of the modem, there are other signals conveyed to the computer via the RS-232-C interface. Ring indicator: turns on during ring. Carrier detect: tells computer connection is made. Data set ready: When on will make and maintain connection; when off will cause a disconnect, and a don't answer state. Data terminal ready: when on, modem will auto-answer. Clear to send: modem is ready to send data. Request to send: enables the transmit mode in full duplex.

Baud rate is the rate at which data bits are sent. Since ASCII is a 7 bit code, each character consists of a start bit, 7 data bits, parity bit and one stop bit for a total of 10 bits. 300 baud would then transmit characters at $300/10 = 30$ CPS. When parity is used, it is most often even parity. Each of the 7 data bits are added together, then another, the parity bit is either a 1 or a 0, so that the total is even for even or odd for odd parity. Binary information is 8 bits, so most BBS systems (bulletin board systems) use 8 bits, no parity, 1 stop bit, so full bytes may be transferred rather than just ASCII characters.

Simplex transmission is one way only, not switchable. IE: output to printer or screen. Half duplex is two way communication, but not simultaneously (like radio tty). In the full duplex mode, what you type into the computer terminal is sent only to the modem, and what is received is displayed on the screen. So that you may see what you are typing, the bulletin board sends the character back to your screen. In this manner you can verify what characters the BBS has received. If the terminal is operating in the half duplex mode, or -echo on-, each character will appear on the screen twice: once from your keyboard, and again when returned from the BBS.

In order to call a BBS you need a full duplex modem, originate mode, a terminal programme operating at 300 baud 8 bits, no parity, 1 stop bit. Everything else is just "bells and whistles".

RANDY CREIGHTON

NORTHWEST ONTARIO NET

The net meets daily at 2015 (8:15 est) on 3750 Khz. When was the last time you checked into our net.

EDITORS RAMBLINGS

First of all the editor's tower should blow over for the big boo-boo I made last month. I got the stencils to the printers with time to spare (I think) but completely forgot about the mailing labels last month then Hi-Q went out the day after the meeting.

This month you should get everything on time. Again sorry for any inconvenience I caused.

Some further bad news. The exec. held a meeting and has decided that a dinner meeting will not be held. It seems that the interest was just not there. It's too bad as this is our 50th year.

HISTORY OF THE LAKEHEAD AMATEUR RADIO CLUB

In 1922 the first amateur radio transatlantic test took place with BP (There was no VE prefix then), Ted Rogers using a spark gap. Success was attained on December 11.

In 1934 interest in amateur radio was running high in the Thunder Bay area and the local hams met with the intention of forming a club. This took place at the Fort William YMCA in April and the hams established THE CANADIAN LAKEHEAD WIRELESS EXPERIMENTERS CLUB.

Those attending were VE3-FW Patrick Joseph O'Shea, VE3 GS Charlie MacDonald, VE3 GB Les Harris (now VE3 AYZ) VE3 GG Mike Caveney, VE3 HA Joe Sky, VE3 RA Ray Godsolve, VE3 UA Brien O'Brien, VE3 UE Borge Rudman, VE3 YY Bruce Grant, CEC Partington, (Later VE4 RY), al Campbell, Stan Clark, Harry Raynor, Arnold Duncan, Dr. Quackenbush, John Fieldhouse, Eric (Ham) Moore and Art Chadwell.

In a later meeting on November 4, the Executive Meeting proposed and passed a resolution that ladies be excluded from the club. The reason??? Well the meetings were to be held at the YMCA and ladies were not allowed in. In the fall of 1934, letters were received from Toronto and Winnipeg, pressing for efforts to establish a traffic handling net between Winnipeg and eastern Ontario. The 75 meter band was chosen for its daylight operation but the local club suggested 40 meters.

In the early years the club held meetings at several places. The others were the Lorna Doone Restaurant on Victoria Avenue for the dinner meetings and the Kam Club on George Street in Fort William where the club rooms were shared with the Camera Club, and until the rent went too high for the Club. After World War II the monthly meetings were held at the Fort William Public Library, the Westfort Library, the Fort William Court House and finally the E.M.O., the present site.

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On May 1st, of 1935, the first annual Dinner Meeting was held in the G. B. Tea Shop. Fifteen members attended. The Treasurer reported a balance of \$6.75. The election of officers then took place with Pat O'Shea - VE3FW elected President and Chas. McDonald - VE3GS elected Vice President and Bruce Grant - VE3SJ Secretary Treasurer. It was reported that Bert Tamblin got his license in March and was operating as VE3ANP and his first contact was Ralph Parker - VE3HU.

Nothing is listed for 1936 but at the 1937 dinner meeting it was moved that all Club dues in arrears be collected. Another motion passed to revert back to the 50¢ a year membership fee as of September 1937. The Dinner Meeting was held on November 2, but no location was given.

In 1939 it was proposed to change the name of the Club. The two choices to be, Thunder Bay Radio Club and Lakehead Radio Club (no "The"). The members chose the latter but following World War II once again reverted back to the Canadian Lakehead Wireless Experimenters.

And that is the information that I gathered in the pre-war days of the Club. No doubt there are lots of details missing and with the passing of time, many errors. If you know the true facts give me a call. In future issues we will continue with the post war days. Thanks to Les Harris - VE3AYZ and Bill Klemacki - VE3XJ for providing information. Mike Wolowich - VE3HZW.

DID YOU KNOW.....The call 3JE was issued to a Toronto man in 1921. That call has now been replaced by the one VE3AJ, but the same man is still operation it 53 years later. Congratulations to Frank Start.

THE PERILS OF OPERATING MOBILE

It has been a long cold winter, and almost everyone at one time or another suffered from the flue or a bad cold. But another epidemic was rampant once again this winter season during the very cold months in the upper United states and Canada.

As reported in North Dakota Journal of Medicine (via the Grand Forks ARC "Beacon") again this winter thousands suffered from severe neck and lower back pain. Reported cases first started about (two) and reached their peak in the 1980-81 winter. For a long time the cause was unidentified and puzzled doctors. It caused grief to both males and females and even teenagers. But did not affect children. Every year the first cases started trickling in southern Manitoba and gradually worked their way south. Ailments decreased in March.

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It wasn't until this year that Dr. Colin De Eckes, of Fargo North Dakota, himself a painful sufferer discovered the common denominator. In each and every reported instance, the victim was either a Ham or CB operator. Upon further investigation and numerous interviews, the Dr. revealed that all operated mobile radios, either CB's or 2 Meter Ham. The Dr. himself is KA9AF.

Here is his explanation. In very cold weather the mobile operator while trying to talk into this microphone cannot stretch the frozen coiled cord very far. As a result, he must hunch over and twist the head to both talk and see where he is driving. Prolonged operation in this manner stretches the ligaments and muscles in the body causing the reported neck and back pains.

So the culprit of all this pain is the cheap cord that most manufacturers install with their rigs, such as realistic and lower priced ham gear like FDK etc. Dr. Eckes recommends replacing the plastic with rubber such as the Belden ML2600 or 2700 (Mil) which have military specifications.

The doctor hopes radio and amateur radio publications will report his finding and prevent a recurrence next season.

VIE GRAND FORKS A.R.C.
BULLETIN "BEACON" APRIL ISSUE

THE PREZ SEZ

Let's have a transmitter hunt in May.

If you want to be the first to get your name on the Les Harris Trophy then be there.
E.M.O. - Sunday, May 6, 1984 - 1 p.m.

Here is one idea that might help if you have a handi-talki (QST Apr.81) Put your handi-talki inside one of your XYL's bread pans and cover the face with a screen. Run the piece of coax through the side of the pan with a BNC connector. (double female bulkhead connector). This RF coffin keeps the RF from going through the plastic case and making full scale readings when you are in close to the hidden transmitter.

If you are using a directional ant., try using the nulls when you are close.

VE3KRO